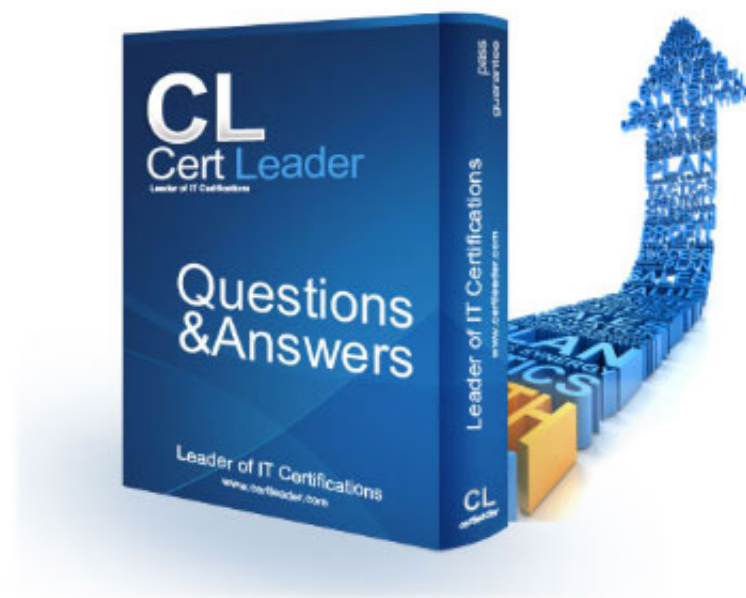


CV0-004 Dumps

CompTIA Cloud+

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NEW QUESTION 1

A banking firm's cloud server will be decommissioned after a successful proof of concept using mirrored data. Which of the following is the best action to take regarding the storage used on the decommissioned server?

- A. Keep it temporarily.
- B. Archive it.
- C. Delete it.
- D. Retain it permanently

Answer: B

Explanation:

When a cloud server is decommissioned after a proof of concept, the best action to take regarding the storage used on the server is to archive it. Archiving ensures that the data is kept in a less accessible but secure storage service, which may be required for regulatory or compliance reasons, especially for a banking firm. References: Data management strategies, including archiving decommissioned data, are covered in the CompTIA Cloud+ examination objectives, particularly within the domain of management and technical operations.

NEW QUESTION 2

A cloud solutions architect needs to have consistency between production, staging, and development environments. Which of the following options will best achieve this goal?

- A. Using Terraform templates with environment variables
- B. Using Grafana in each environment
- C. Using the ELK stack in each environment
- D. Using Jenkins agents in different environments

Answer: A

Explanation:

Terraform templates with environment variables can ensure consistency across different environments such as production, staging, and development. Terraform allows for infrastructure as code, which can be used to define and maintain infrastructure with consistency. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg.

NEW QUESTION 3

A cloud engineer is running a latency-sensitive workload that must be resilient and highly available across multiple regions. Which of the following concepts best addresses these requirements?

- A. Cloning
- B. Clustering
- C. Hardware passthrough
- D. Stand-alone container

Answer: B

Explanation:

Clustering refers to the use of multiple servers/computers to form what appears to be a single system. This concept is key for achieving high availability and resilience, especially for latency-sensitive workloads. By distributing the workload across a cluster that spans multiple regions, the system can continue to operate even if one or more nodes fail, thus maintaining performance and availability. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 4

Which of the following is a difference between a SAN and a NAS?

- A. A SAN works only with fiber-based networks.
- B. A SAN works with any Ethernet-based network.
- C. A NAS uses a faster protocol than a SAN
- D. A NAS uses a slower protocol than a SAN.

Answer: D

Explanation:

A NAS (Network Attached Storage) typically uses file-level protocols such as NFS or SMB, which are generally considered slower and less efficient than the block-level protocols used by SANs (Storage Area Networks), such as iSCSI or Fibre Channel. SANs are designed for high performance and low latency, making them more suitable for applications requiring fast and efficient storage access.

NEW QUESTION 5

Which of the following is used to deliver code quickly and efficiently across the development, test, and production environments?

- A. Snapshot
- B. Container image
- C. Serverless function
- D. VM template

Answer: B

Explanation:

A container image is used to deliver code quickly and efficiently across the development, test, and production environments. Container images are lightweight, standalone, executable software packages that include everything needed to run a piece of software, including the code, runtime, system tools, libraries, and settings. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Deployment Methods

NEW QUESTION 6

A cloud engineer is troubleshooting an application that consumes multiple third-party REST APIs. The application is randomly experiencing high latency. Which of the following would best help determine the source of the latency?

- A. Configuring centralized logging to analyze HTTP requests
- B. Running a flow log on the network to analyze the packets
- C. Configuring an API gateway to track all incoming requests
- D. Enabling tracing to detect HTTP response times and codes

Answer: D

Explanation:

Enabling tracing in the application can help determine the source of high latency by providing detailed information on HTTP request and response times, as well as response codes. This can identify which API calls are experiencing delays and contribute to overall application latency, allowing for targeted troubleshooting and optimization.

NEW QUESTION 7

Which of the following strategies requires the development of new code before an application can be successfully migrated to a cloud provider?

- A. Refactor
- B. Rearchitect
- C. Rehost
- D. Replatform

Answer: A

Explanation:

Refactoring requires the development of new code before an application can be successfully migrated to a cloud provider. It often involves restructuring and optimizing the existing code without changing its external behavior to fit into the new cloud environment. References: Application migration strategies and the requirements for each, like refactoring, are included in cloud migration best practices covered in CompTIA Cloud+.

NEW QUESTION 8

The change control board received a request to approve a configuration change to deploy in the cloud production environment. Which of the following should have already been completed?

- A. Penetration test
- B. End-to-end security testing
- C. Cost benefit analysis
- D. User acceptance testing

Answer: D

Explanation:

Before a configuration change is deployed in the cloud production environment, it is crucial to conduct User Acceptance Testing (UAT). UAT involves testing the system by the end-users or clients to ensure it can handle required tasks in real-world scenarios, according to specifications. This testing is the final stage before the change is approved for production, ensuring that all functionalities meet user requirements and the system is ready for deployment. References: The CompTIA Cloud+ certification highlights the significance of various testing phases, including UAT, as part of the cloud deployment process to validate the system's readiness and functionality for end-users.

NEW QUESTION 9

A systems administrator needs to configure a script that will monitor whether an application is healthy and stop the VM if an unsuccessful code is returned. Which of the following scripts should the systems administrator use to achieve this goal?

- A. `RESPONSE_CODE }string APP_URLbool RESPONSE_CODEstring VMhealth checker (APP_URL, VM) {if [ http_probe (APP_URL) == 200] { echo RESPONSE_CODE }else{ stop (VM) echo`
- B. `else{ echostring APP_URLfloat RESPONSE_CODE string VMhealth_checker (APP_URL, VM) {if [ http_probe (APP_URL) == 200] { stop (RESPONSE_CODE)echo VM } stop (VM)RESPONSE CODE }`
- C. `else{ echostring APP_URLint RESPONSE_CODEstring VMhealth checker (APP_URL, VM) {if [ http_probe (APP_URL) == 200] { echo RESPONSE_CODE }stop (VM) RESPONSE_CODE }`
- D. `else{ echostring APP_URLint RESPONSE_CODEstring VMhealth_checker (APP_URL, VM) { if [ http_probe (VM) == 200] { stop (VM)echo RESPONSE_CODE } RESPONSE CODE }`

Answer: A

Explanation:

Script A is designed to monitor the health of an application by checking its response code. If the application returns a 200 (OK) status, it indicates that the application is healthy. Otherwise, the script will stop the VM to address the issue, which is a common approach to handle unhealthy application states in automated environments. This script effectively achieves the goal of monitoring application health and taking corrective action when an unsuccessful code is returned. References: CompTIA Cloud+ resources and general scripting practices for cloud environments

NEW QUESTION 10

A systems administrator is configuring backups on a VM and needs the process to run as quickly as possible, reducing the bandwidth on the network during all

times from Monday through Saturday. In the event of data corruption, the management team expects the mean time to recovery to be as low as possible. Which of the following backup methods can the administrator use to accomplish these goals?

- A. Incremental backup daily to the cloud
- B. Full backup on Sunday and incremental backups on all other days of the week
- C. Differential backup daily to the cloud
- D. Incremental backups during off-hours on Monday, Wednesday, and Friday

Answer: B

Explanation:

To achieve a quick backup process and reduce bandwidth use, the administrator should perform a Full backup on Sunday and incremental backups on all other days of the week. This method ensures that only the changes made since the last full backup are copied, reducing the amount of data that needs to be transferred each time, and thus the time and bandwidth required. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 10

A systems administrator notices a surge of network traffic is coming from the monitoring server. The administrator discovers that large amounts of data are being downloaded to an external source. While investigating, the administrator reviews the following logs:

Protocol	Local address	Foreign address	State
TCP	10.181.12.5:20	172.17.250.12	ESTABLISHED
TCP	10.181.12.5:22	172.32.58.39	ESTABLISHED
TCP	10.181.12.5:443	172.30.252.204	ESTABLISHED
TCP	10.181.12.5:4443	10.11.15.82	ESTABLISHED
TCP	10.181.12.5:8048	172.24.255.192	TIME_WAIT

Which of the following ports has been compromised?

- A. Port 20
- B. Port 22
- C. Port 443
- D. Port 4443
- E. Port 8048

Answer: E

Explanation:

Based on the logs provided, the port that has been compromised is Port 8048. The state "TIME_WAIT" indicates that this port was recently used to establish a connection that has now ended. This could be indicative of the recent activity where large amounts of data were downloaded to an external source, suggesting a potential security breach. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 15

Which of the following would allow a cloud engineer to flatten a deeply nested JSON log to improve readability for analysts?

- A. Grafana
- B. Kibana
- C. Elasticsearch
- D. Logstash

Answer: D

Explanation:

Logstash can be used to flatten a deeply nested JSON log, which would improve readability for analysts. Logstash is a data processing pipeline that ingests data from various sources, transforms it, and then sends it to a "stash" like Elasticsearch. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Data Management

NEW QUESTION 19

A junior cloud administrator was recently promoted to cloud administrator and has been added to the cloud administrator group. The cloud administrator group is the only one that can access the engineering VM. The new administrator unsuccessfully attempts to access the engineering VM. However, the other administrators can access it without issue. Which of the following is the best way to identify the root cause?

- A. Rebooting the engineering VM
- B. Reviewing the administrator's permissions to access the engineering VM
- C. Allowing connections from 0.0.0.0/0 to the engineering VM
- D. Performing a packet capture on the engineering VM

Answer: B

Explanation:

The best way to identify the root cause of why the new cloud administrator cannot access the engineering VM is by reviewing the administrator's permissions. It is possible that, despite being added to the cloud administrator group, the specific permissions to access the engineering VM were not properly configured. References: Permission issues are a common problem in cloud environments, and troubleshooting such issues is part of the cloud management skills discussed in the CompTIA Cloud+ certification

NEW QUESTION 20

SIMULATION

A company has decided to scale its e-commerce application from its corporate datacenter to a commercial cloud provider to meet an anticipated increase in demand during an upcoming holiday.

The majority of the application load takes place on the application server under normal conditions. For this reason, the company decides to deploy additional application servers into a commercial cloud provider using the on-premises orchestration engine that installs and configures common software and network configurations.

The remote computing environment is connected to the on-premises datacenter via a site-to-site IPsec tunnel. The external DNS provider has been configured to use weighted round-robin routing to load balance connections from the Internet.

During testing, the company discovers that only 20% of connections completed successfully.

INSTRUCTIONS

Review the network architecture and supporting documents and fulfill these requirements: Part 1:

- _ Analyze the configuration of the following components: DNS, Firewall 1, Firewall 2, Router 1, Router 2, VPN and Orchestrator Server.
- _ Identify the problematic device(s).

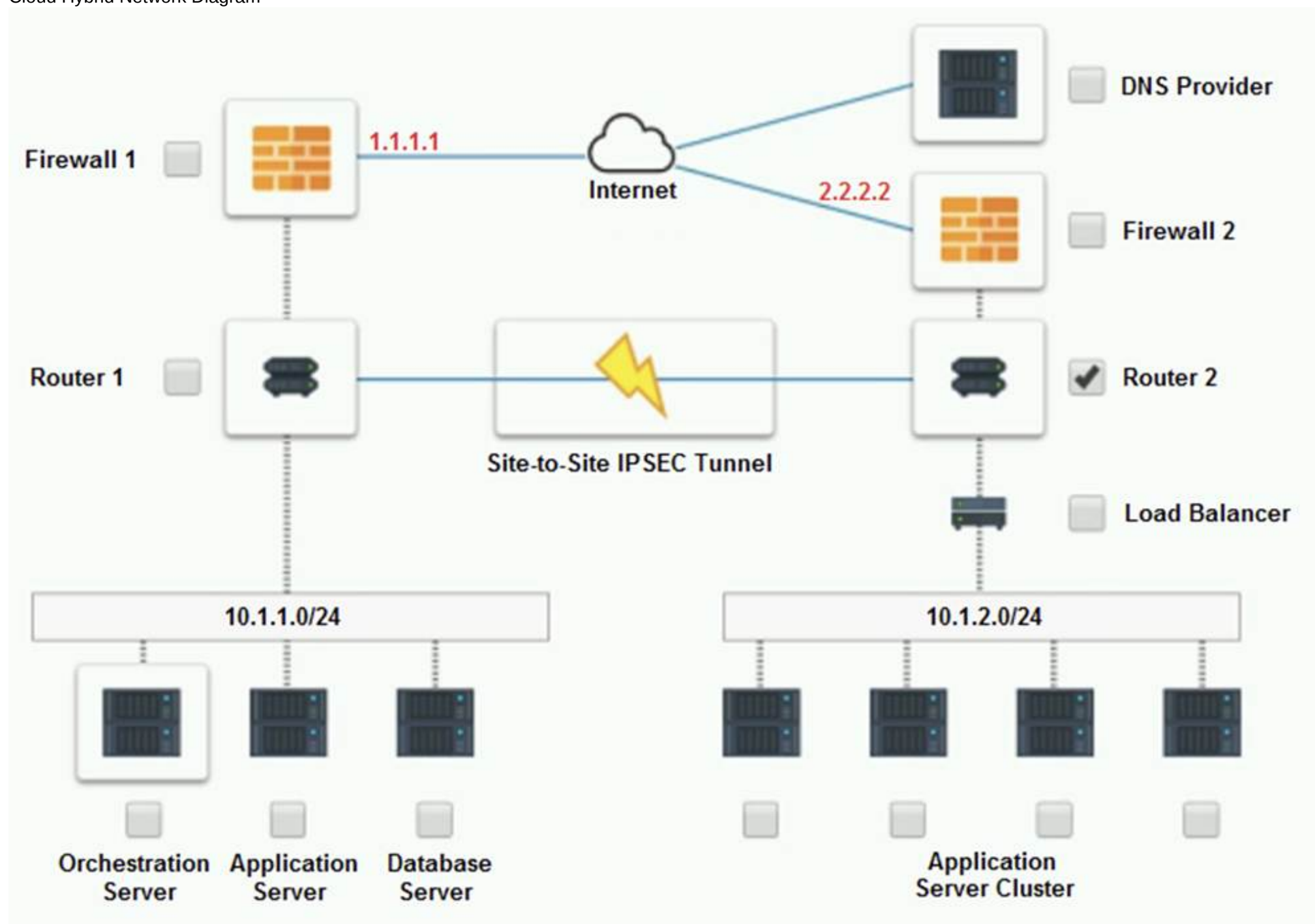
Part 2:

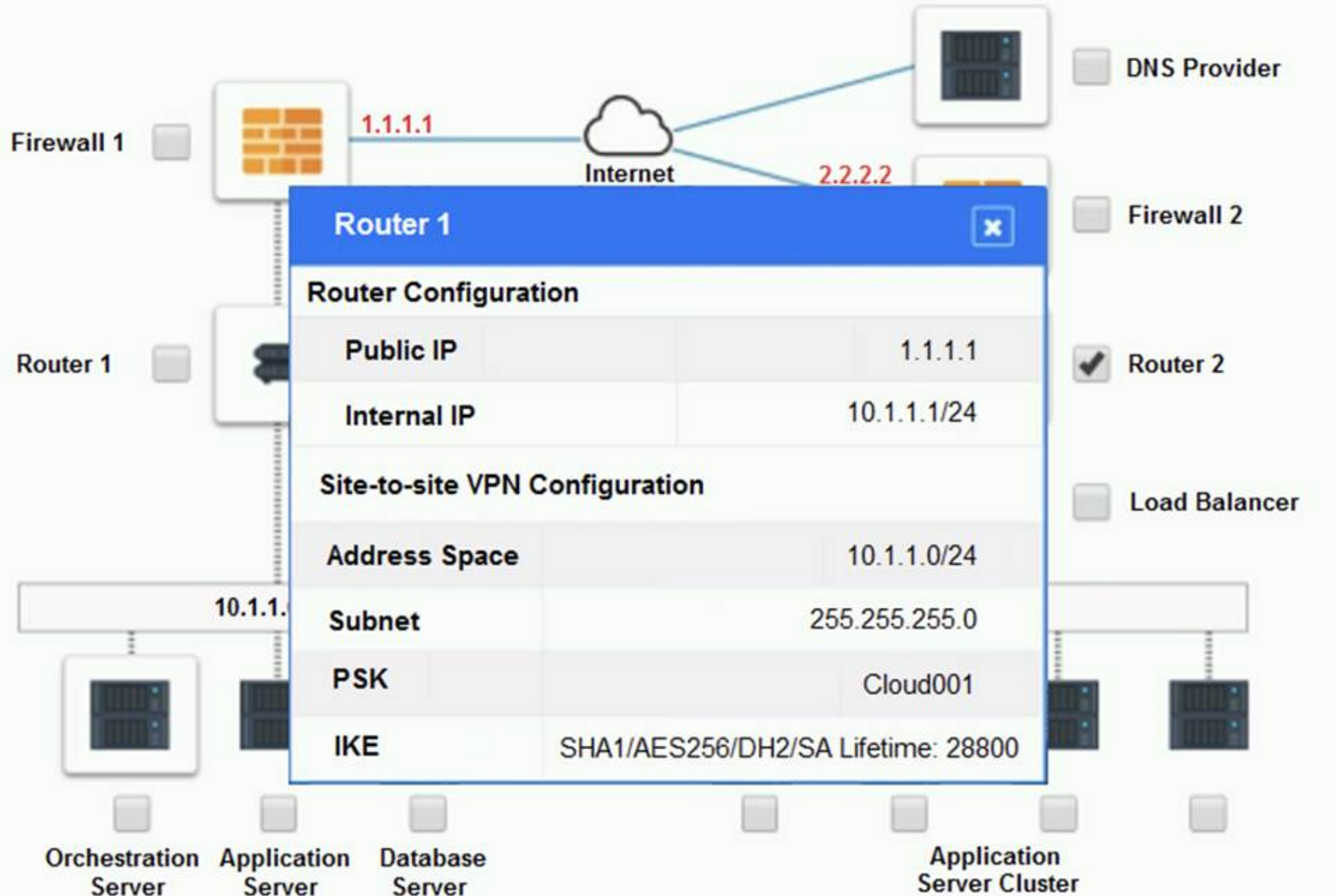
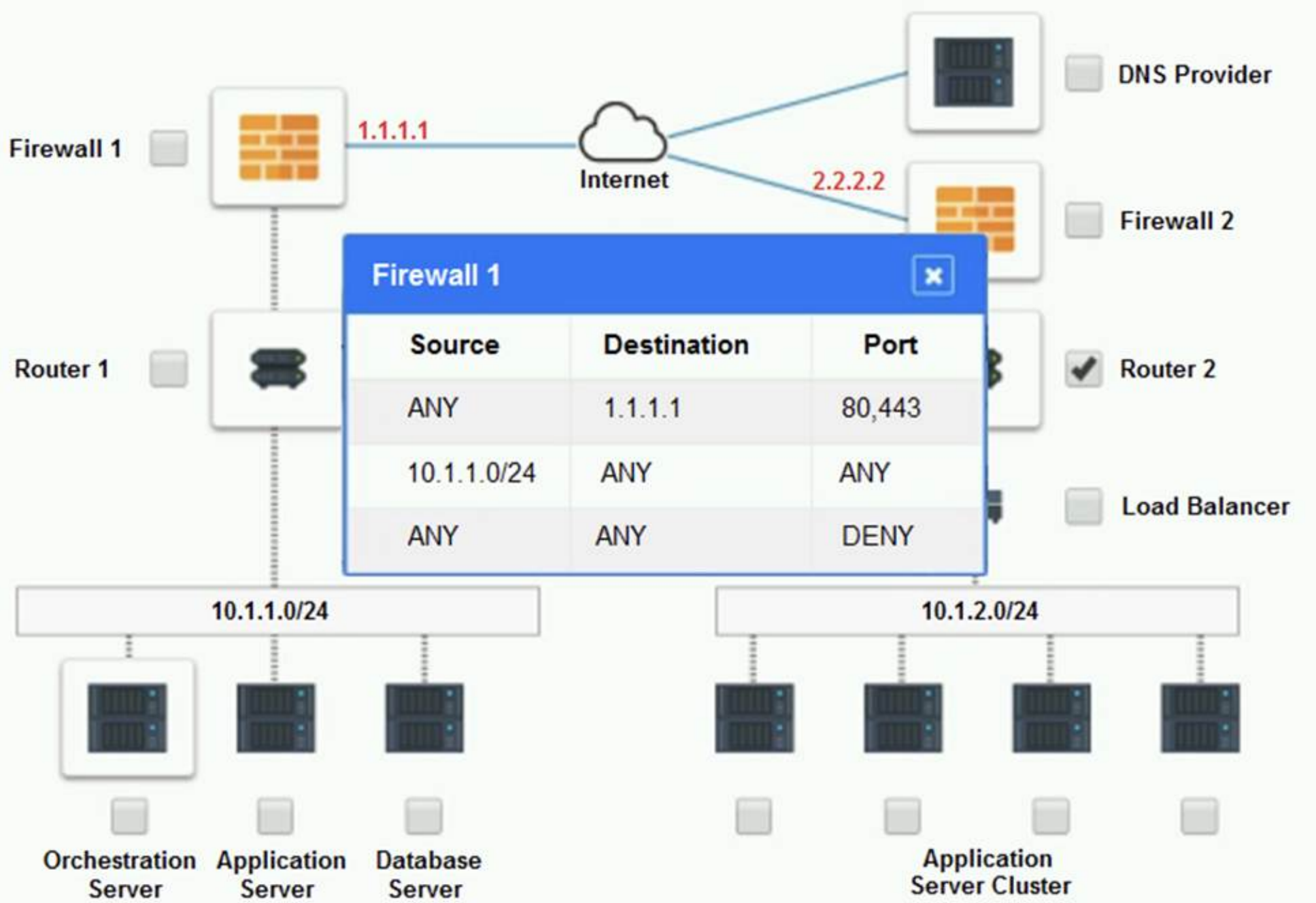
- _ Identify the correct options to provide adequate configuration for hybrid cloud architecture.

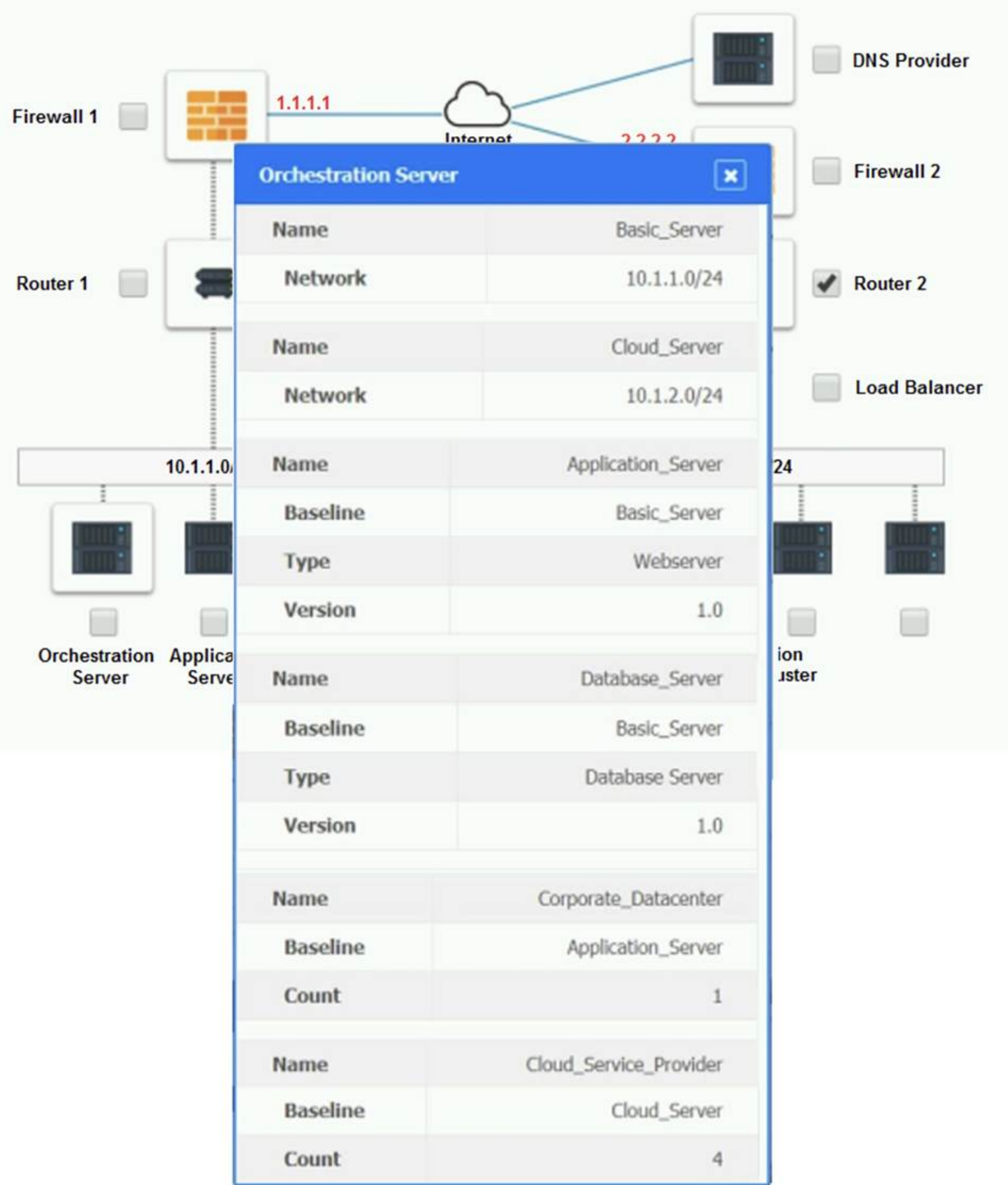
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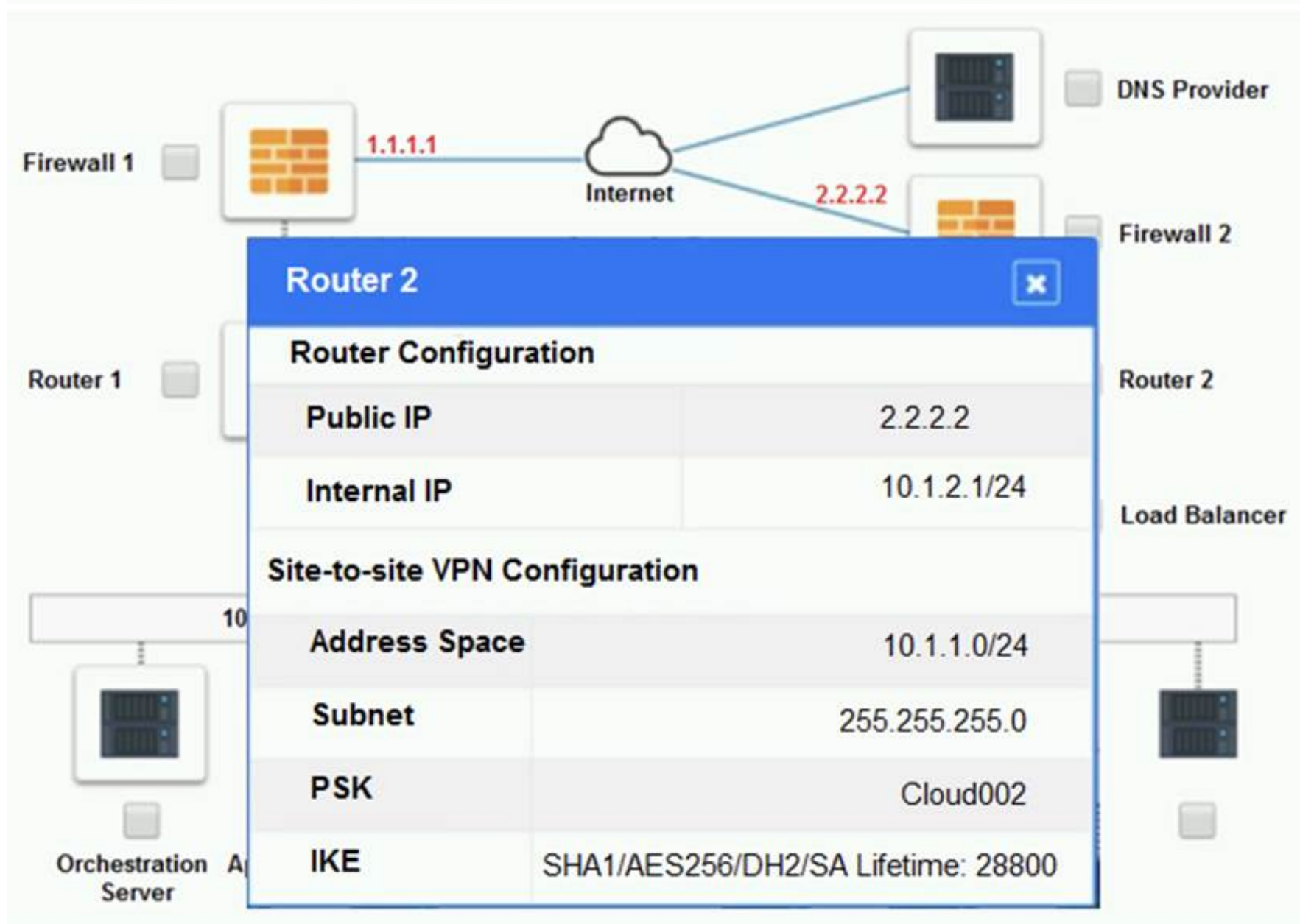
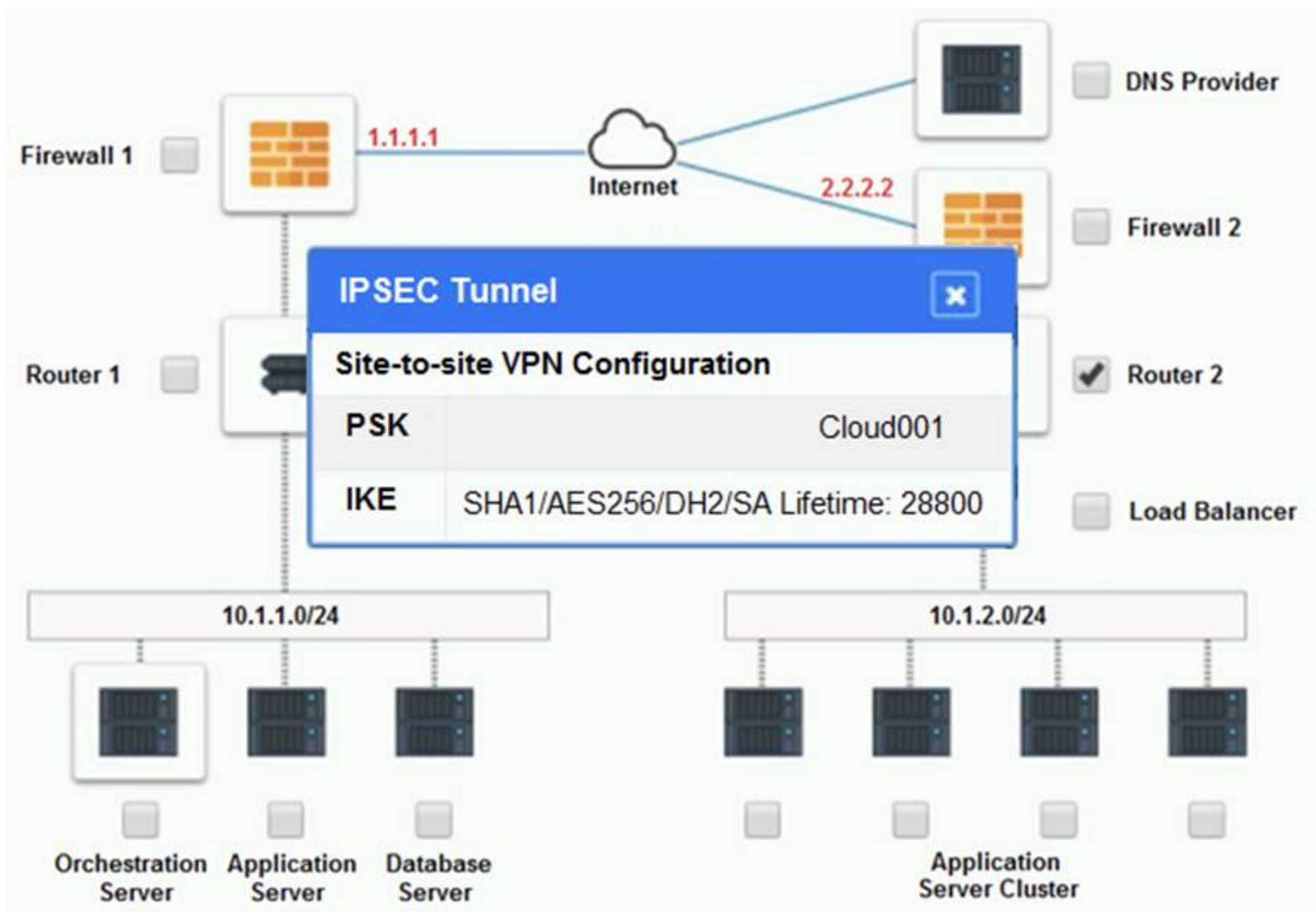
Part 1:

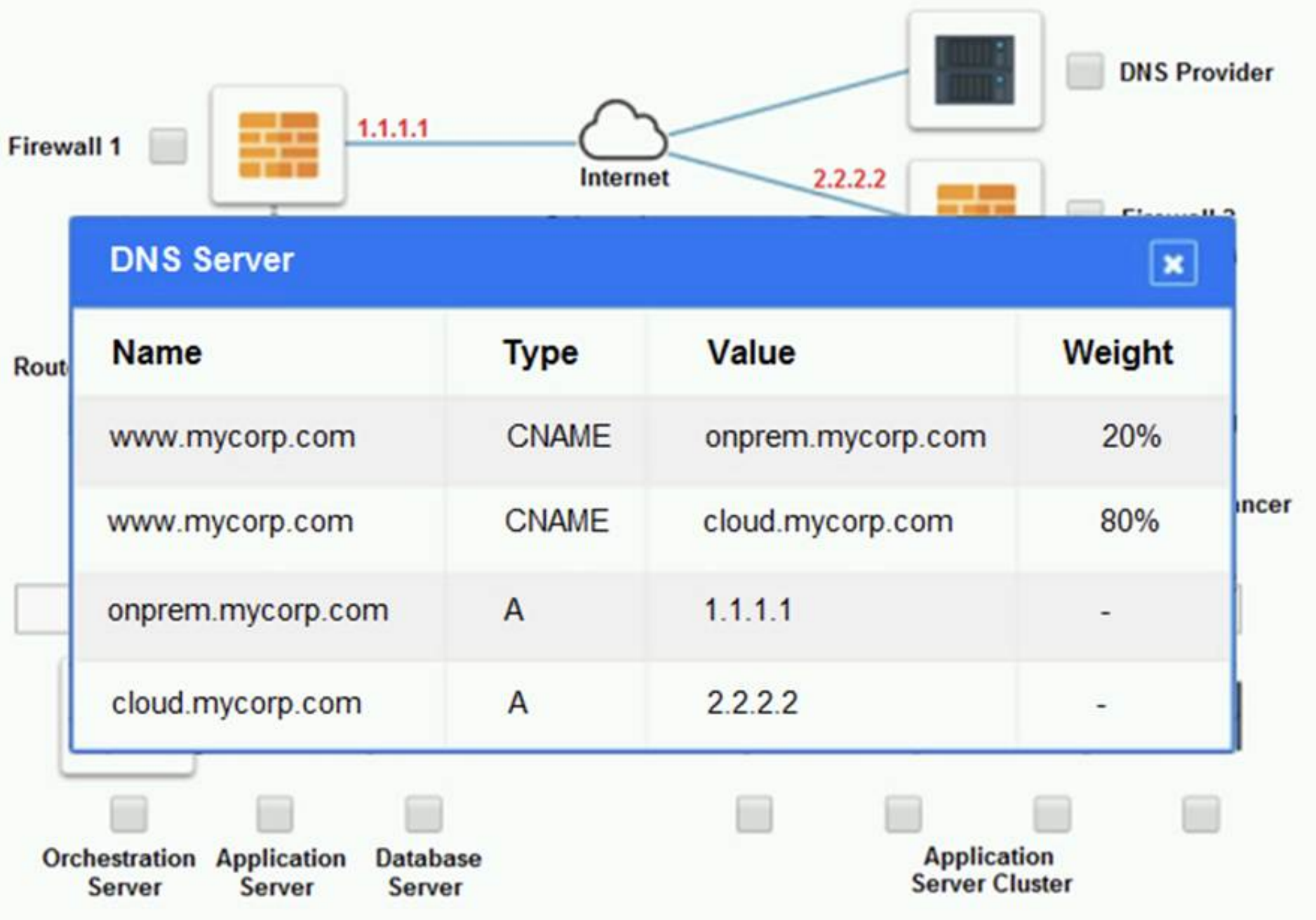
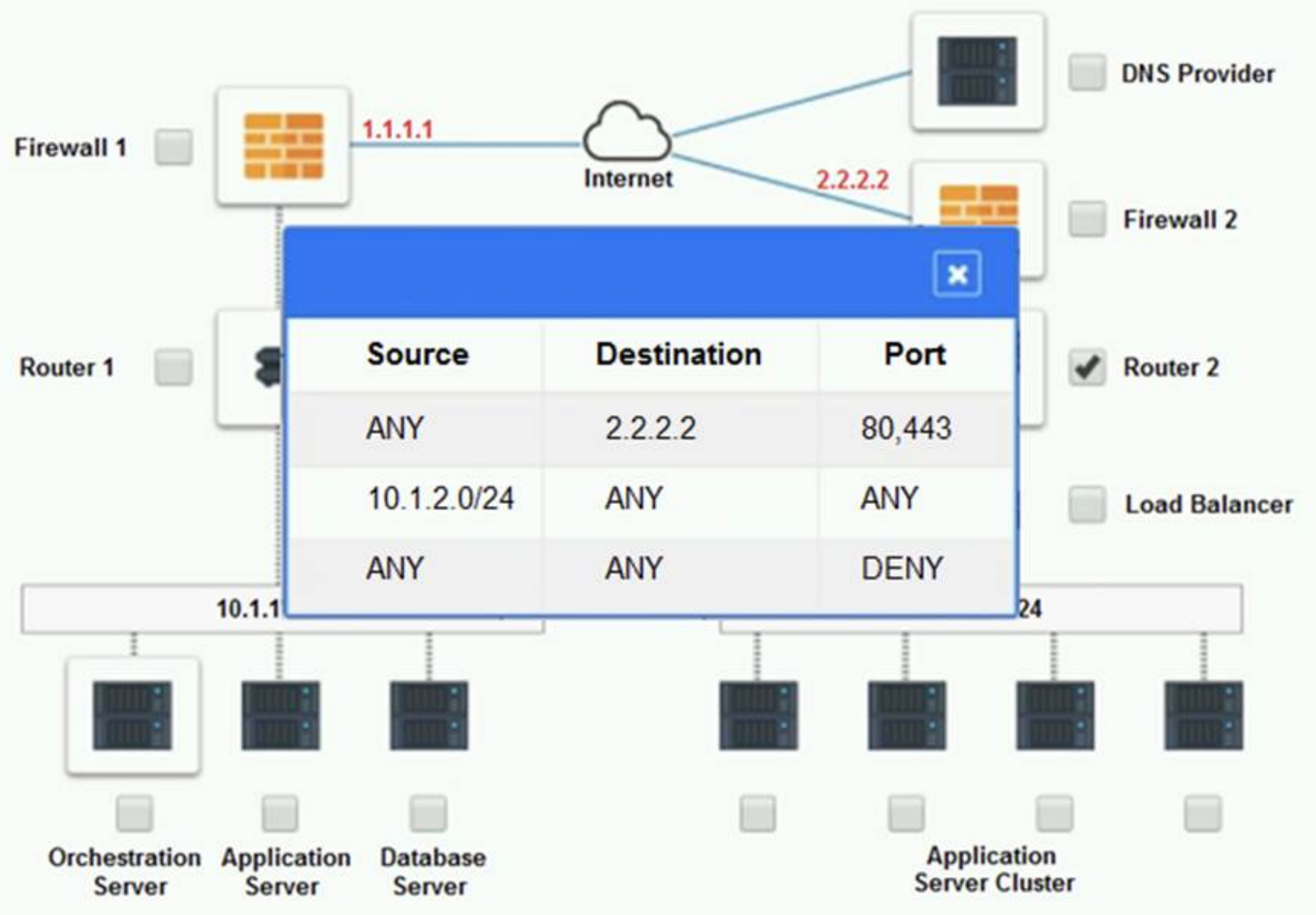
Cloud Hybrid Network Diagram











Part 2:
Only select a maximum of TWO options from the multiple choice question

- ☐ Deploy a Replica of the Database Server in the Cloud Provider.
- ☐ Update the PSK (Pre-shared key) in Router 2.
- ☐ Update the A record on the DNS from 2.2.2.2 to 1.1.1.1.
- ☐ Promote deny All to allow All in Firewall 1 and Firewall 2.
- ☐ Change the Address Space on Router 2.
- ☐ Change internal IP Address of Router 1.
- ☐ Reverse the Weight property in the two CNAME records on the DNS.
- ☐ Add the Application Server at on-premises to the Load Balancer.

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Part 1: Router 2

The problematic device is Router 2, which has an incorrect configuration for the IPSec tunnel. The IPSec tunnel is a secure connection between the on-premises datacenter and the cloud provider, which allows the traffic to flow between the two networks. The IPSec tunnel requires both endpoints to have matching parameters, such as the IP addresses, the pre-shared key (PSK), the encryption and authentication algorithms, and the security associations (SAs).

According to the network diagram and the configuration files, Router 2 has a different PSK and a different address space than Router 1. Router 2 has a PSK of ??1234567890??, while Router 1 has a PSK of ??0987654321??. Router 2 has an address space of 10.0.0.0/8, while Router 1 has an address space of 192.168.0.0/16. These mismatches prevent the IPSec tunnel from establishing and encrypting the traffic between the two networks.

The other devices do not have any obvious errors in their configuration. The DNS provider has two CNAME records that point to the application servers in the cloud provider, with different weights to balance the load. The firewall rules allow the traffic from and to the application servers on port 80 and port 443, as well as the traffic from and to the VPN server on port 500 and port 4500. The orchestration server has a script that installs and configures the application servers in the cloud provider, using the DHCP server to assign IP addresses.

Part 2:

The correct options to provide adequate configuration for hybrid cloud architecture are:

? Update the PSK in Router 2.

? Change the address space on Router 2.

These options will fix the IPSec tunnel configuration and allow the traffic to flow between the on-premises datacenter and the cloud provider. The PSK should match the one on Router 1, which is ??0987654321??. The address space should also match the one on Router 1, which is 192.168.0.0/16.

* B. Update the PSK (Pre-shared key in Router2)

* E. Change the Address Space on Router2

NEW QUESTION 21

Which of the following is the most cost-effective way to store data that is infrequently accessed?

- A. Cold site
B. Hot site
C. Off-site
D. Warm site

Answer: C

Explanation:

The most cost-effective way to store data that is infrequently accessed is typically an off-site storage service, often referred to as cold or archival storage. This type of storage is designed for data that is rarely accessed, providing lower storage costs. References: Data storage solutions and their cost implications, including off-site (cold or archival) storage for infrequently accessed data, are part of the cloud storage options discussed in CompTIA Cloud+.

NEW QUESTION 25

An organization is hosting a seminar with eight individuals who need to connect to their own dedicated VM. The technician used the following VM configurations:

IP address: DHCP NIC: 1Gbps

Network: 10.1.10.0/29

Several users are unable to access their VMs. Which of the following best describes the reason?

- A. Not enough addresses are available.
- B. The routes are misconfigured.
- C. Too much traffic is on the network.
- D. DHCP is not working correctly on the VM.

Answer: A

Explanation:

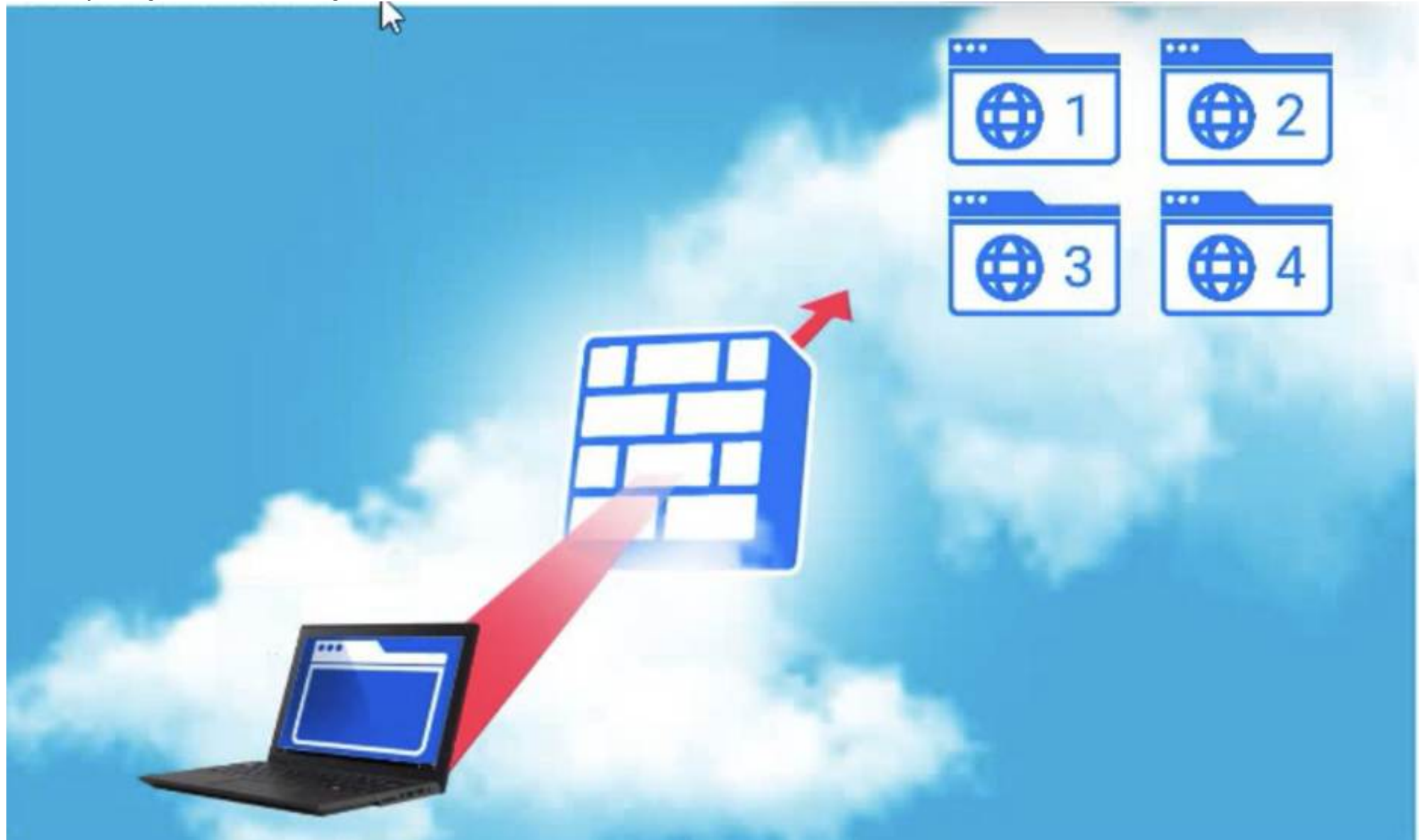
The network is configured with a subnet of /29, which provides only 6 usable IP addresses after accounting for the network and broadcast addresses. With eight individuals needing to connect to their own dedicated VMs, there are not enough IP addresses available to assign to each VM, leading to several users being unable to access their VMs. This issue is not related to misconfigured routes, network traffic, or DHCP functionality, but rather the limited number of IP addresses available in the given subnet.

NEW QUESTION 29

SIMULATION

A company hosts various containerized applications for business uses. A client reports that one of its routine business applications fails to load the web-based login prompt hosted in the company cloud.

Click on each device and resource. Review the configurations, logs, and characteristics of each node in the architecture to diagnose the issue. Then, make the necessary changes to the WAF configuration to remediate the issue.



Web app 1			
SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp1	FIN	10.22.10.11	443

Web app 2

SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp2	VIDEO	10.22.10.21	443

Web app 3

SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp3	API	10.22.10.31	443

Web app 4

SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp4	CHAT	10.22.10.41	443

WAF

Edit config

WAF logs

Rule ID	Description	Service	Action	Availability zone
1001	Brute force attempt	^https://webapp[.]comptia[.]org/\$	Block	A
1002	Botnet	^https://webapp[.]comptia[.]org/\$	Block	A
1003	API web server	^https://webapp3[.]comptia[.]org/([0-9A-Za-z]([0-9A-Za-z_?]*))*\$	Allow	B
1004	Chat web traffic	^https://webapp4[.]comptia[.]org/chat/request[.]php\$	Allow	B
1005	Finance application 1	^https://webapp1[.]comptia[.]org/([0-9A-Za-z]([0-9A-Za-z_?]*))*\$	Allow	B
1006	Finance application 2	^https://webapp1[.]comptia[.]org/login[.]html\$	Block	A
1007	Video application	^https://webapp2[.]comptia[.]org/video/stream\$	Allow	A

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

From the image, it's noticeable that some finance application rules are set to "Block" traffic. If the client's issue is with a finance-related application not loading the login prompt, these rules could be the cause. The rule with ID 1005, labeled "Finance application 1", is configured to allow access to "webapp1" for finance-related paths. However, rule 1006, labeled "Finance application 2", is set to block access to "webapp1" for login-related paths.

To remediate the issue based on the WAF configuration you have provided, you would want to:

? Ensure that the correct paths to the finance application are allowed through the WAF.

? Modify any rules that are incorrectly blocking access to the application.

If the client's problem is specifically with the login prompt, then rule 1006 seems the most likely culprit. Changing the action from "Block" to "Allow" for rule 1006 could potentially resolve the client's issue. The rule should be carefully reviewed and updated to ensure legitimate traffic is not being blocked while still protecting against unauthorized access.

NEW QUESTION 30

A company's engineering department is conducting a month-long test on the scalability of an in-house-developed software that requires a cluster of 100 or more servers. Which of the following models is the best to use?

- A. PaaS
- B. SaaS
- C. DBaaS
- D. IaaS

Answer: D

Explanation:

For testing the scalability of an in-house-developed software that requires a cluster of 100 or more servers, Infrastructure as a Service (IaaS) is the best model. IaaS provides the necessary computer resources and allows the engineering department to configure the environment as needed for their specific test without the constraints that might be present in PaaS or SaaS offerings. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Service Models

NEW QUESTION 31

Which of the following do developers use to keep track of changes made during software development projects?

- A. Code drifting
- B. Code control
- C. Code testing
- D. Code versioning

Answer: D

Explanation:

Developers use code versioning to keep track of changes made during software development projects. It is a system that records changes to a file or set of files over time so that specific versions can be recalled later. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Software Development in Cloud Environments

NEW QUESTION 36

A list of CVEs was identified on a web server. The systems administrator decides to close the ports and disable weak TLS ciphers. Which of the following describes this vulnerability management stage?

- A. Scanning
- B. Identification
- C. Assessment
- D. Remediation

Answer: D

Explanation:

Closing the ports and disabling weak TLS ciphers as a response to a list of identified CVEs (Common Vulnerabilities and Exposures) describes the vulnerability management stage of 'remediation'. This stage involves taking actions to resolve vulnerabilities and mitigate potential risks. References: Vulnerability management stages, including remediation efforts, are a key aspect of the security measures discussed in CompTIA Cloud+.

NEW QUESTION 41

A company has one cloud-based web server that is prone to downtime during maintenance. Which of the following should the cloud engineer add to ensure high availability?

- A. A redundant web server behind a load balancer
- B. A backup cloud web server
- C. A secondary network link to the web server
- D. An autoscaling feature on the web server

Answer: A

Explanation:

Adding a redundant web server behind a load balancer is the solution that will ensure high availability. If one server goes down for maintenance, the other can take over, ensuring that the web service remains available without interruption. References: High availability concepts, including the use of load balancers and redundant servers, are part of cloud infrastructure design as per CompTIA Cloud+.

NEW QUESTION 43

A cloud administrator wants to provision a host with two VMs. The VMs require the following:

	Host	VM1	VM2
NIC	1Gbps	1Gbps	1Gbps
CPU	4	1	1
RAM	8	2	2
Storage (thin provisioned)	2TB	1.5TB	1.2TB
Storage utilization		22.5%	50%
Daily network traffic		1.2TB	200GB

After configuring the servers, the administrator notices that during certain hours of the day, the performance heavily degrades. Which of the following is the best explanation?

- A. The host requires additional physical CPUs.
- B. A higher number of processes occur at those times.
- C. The RAM on each VM is insufficient.
- D. The storage is overutilized.

Answer: C

Explanation:

Given the provided table, the VMs have been allocated 2GB of RAM each, which may be insufficient for their workload, especially during peak hours which could lead to performance degradation. Insufficient RAM can cause the VMs to use swap space on disk, which is significantly slower and can lead to poor performance. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg.

NEW QUESTION 44

A customer is migrating applications to the cloud and wants to grant authorization based on the classification levels of each system. Which of the following should the customer implement to ensure authorisation to systems is granted when the user and system classification properties match? (Select two).

- A. Resource tagging
- B. Discretionary access control
- C. Multifactor authentication
- D. Role-based access control
- E. Token-based authentication
- F. Bastion host

Answer: BD

Explanation:

Discretionary Access Control (DAC) and Role-Based Access Control (RBAC) are effective methods for granting authorization based on system classification levels. DAC allows resource owners to grant access rights, making it flexible for environments with varying classification levels. RBAC assigns permissions based on roles within an organization, aligning access rights with the user's job functions and ensuring that users access only what is necessary for their role, which can be mapped to system classifications. References: CompTIA Cloud+ content covers various access control models, emphasizing the importance of implementing appropriate security measures that align with organizational policies and classification levels to ensure secure and authorized access to cloud systems.

NEW QUESTION 49

Department supervisors have requested a report that will help them understand the utilization of cloud resources, make decisions about budgeting for the following year, and reduce costs. Which of the following are the most important requisite steps to create the report? (Select two).

- A. Set the desired retention of resource logs.
- B. Configure application tracing.
- C. Integrate email alerts with ticketing software.
- D. Enable resource tagging.
- E. Configure the collection of performance/utilization logs.
- F. Configure metric threshold alerts.

Answer: DE

Explanation:

To create a report that helps understand the utilization of cloud resources, make budget decisions, and reduce costs, the most important steps are to enable resource tagging and configure the collection of performance/utilization logs. Resource tagging helps in categorizing and tracking costs by associating tags with resources, while performance/utilization logs are essential for analyzing resource usage over time. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Management

NEW QUESTION 50

An IT security team wants to ensure that the correct parties are informed when a specific user account is signed in. Which of the following would most likely allow an administrator to address this concern?

- A. Creating an alert based on user sign-in criteria
- B. Aggregating user sign-in logs from all systems
- C. Enabling the collection of user sign-in logs
- D. Configuring the retention of all sign-in logs

Answer: A

Explanation:

To ensure that the correct parties are informed when a specific user account is signed in, the best action is to create an alert based on user sign-in criteria. This alert can notify administrators or security personnel when the specified event occurs. References: Security monitoring and alerting are critical components of managing cloud environments securely, as discussed in the CompTIA Cloud+ certification.

NEW QUESTION 51

An administrator needs to adhere to the following requirements when moving a customer's data to the cloud:

- The new service must be geographically dispersed.
- The customer should have local access to data
- Legacy applications should be accessible.

Which of the following cloud deployment models is most suitable?

- A. On-premises
- B. Private
- C. Hybrid
- D. Public

Answer: C

Explanation:

A hybrid cloud deployment model is most suitable given the requirements. This model combines on-premises infrastructure (or private cloud) with public cloud services, providing geographic dispersion while allowing local access to data. It also facilitates the use of legacy applications that might not be well-suited for a full public cloud environment. References: The hybrid model is a fundamental concept within the CompTIA Cloud+ curriculum, under the section of Cloud Concepts, that explains deployment models.

NEW QUESTION 56

Which of the following is a direct effect of cloud migration on an enterprise?

- A. The enterprise must reorganize the reporting structure.
- B. Compatibility issues must be addressed on premises after migration.
- C. Cloud solutions will require less resources than on-premises installations.
- D. Utility costs will be reduced on premises.

Answer: D

Explanation:

Cloud migration typically results in a reduction of on-premises utility costs because the physical infrastructure requirements, such as power and cooling, are transferred to the cloud provider. This shift can lead to significant savings in utility expenses for the enterprise. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274- 282-2)

NEW QUESTION 58

A user's assigned cloud credentials are locked, and the user is unable to access the project's application. The cloud administrator reviews the logs and notices several attempts to log in with the user's account were made to a different application after working hours. Which of the following is the best approach for the administrator to troubleshoot this issue?

- A. Create new credentials for the user and restrict access to the authorized application.
- B. Track the source of the log-in attempts and block the IP address of the source in the WAR
- C. Reset the user's account and implement a stronger lock-out policy.
- D. Install an IDS on the network to monitor suspicious activity

Answer: B

Explanation:

The administrator should track the source of the log-in attempts and block the IP address in the Web Application Firewall (WAF). This will prevent further unauthorized attempts from that source. It is also advisable to reset the user's account credentials as a precautionary measure. References: Incident response and addressing unauthorized access attempts, including tracking and blocking IP addresses, are security measures addressed in the CompTIA Cloud+ material.

NEW QUESTION 61

Which of the following integration systems would best reduce unnecessary network traffic by allowing data to travel bidirectionally and facilitating real-time results for developers who need to display critical information within applications?

- A. REST API
- B. RPC
- C. GraphQL
- D. Web sockets

Answer: D

Explanation:

Web sockets provide a full-duplex communication channel over a single, long-lived connection, allowing data to flow bidirectionally between a client and a server. This is ideal for real-time applications where developers need to display critical information without unnecessary network overhead, as it reduces the need for repetitive HTTP requests and allows for more efficient, instantaneous data updates and interactions.

NEW QUESTION 63

A cloud administrator learns that a major version update. 4.6.0. is available for a business- critical application. The application is currently on version 4.5.2. with additional minor versions 3, 4, and 5 available. The administrator needs to perform the update while minimizing downtime. Which of the following should the administrator do first?

- A. Apply the minor updates and then restart the machine before applying the major update.
- B. During off hours, decommission the machine and create a new one directly on major update 4.6.0.
- C. Stop the service and apply the major updates directly.
- D. Create a test environment and apply the major update

Answer: D

Explanation:

The first step the administrator should take is to create a test environment and apply the major update there. This allows for testing the new version without impacting the production environment, thus minimizing downtime and the potential for unexpected issues. References: Creating test environments and conducting thorough testing before applying updates in production is a risk mitigation strategy covered under cloud deployment and operations in the CompTIA Cloud+ certification.

NEW QUESTION 68

An organization has been using an old version of an Apache Log4j software component in its critical software application. Which of the following should the organization use to calculate the severity of the risk from using this component?

- A. CWE
- B. CVSS
- C. CWSS
- D. CVE

Answer: B

Explanation:

The Common Vulnerability Scoring System (CVSS) is what the organization should use to calculate the severity of the risk from using an old version of Apache Log4j software component. CVSS provides an open framework for communicating the characteristics and impacts of IT vulnerabilities. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Risk Management

NEW QUESTION 70

Which of the following service options would provide the best availability for critical applications in the event of a disaster?

- A. Edge computing
- B. Cloud bursting
- C. Availability zones
- D. Multicloud tenancy

Answer: C

Explanation:

Availability zones provide the best availability for critical applications in the event of a disaster. They are distinct locations within a cloud region that are engineered to be isolated from failures in other availability zones, thus providing redundancy and failover capabilities, which is essential for maintaining high availability of critical applications. References: The concept of availability zones and their importance in disaster recovery and high availability is covered under the domain of Management and Technical Operations in the CompTIA Cloud+ objectives.

NEW QUESTION 73

Which of the following can reduce the risk of CI/CD pipelines leaking secrets?

- A. Protected Git branches
- B. Use of a VM instead of containers
- C. Private image repositories
- D. Canary tests

Answer: A

Explanation:

Protected Git branches help reduce the risk of CI/CD pipelines leaking secrets by imposing restrictions on who can commit to the branches, enforce status checks before merging, and prevent unauthorized access or changes to sensitive information, such as API keys, passwords, and secret tokens. This ensures that only approved changes can be made to the codebase, and sensitive information is safeguarded.

NEW QUESTION 77

A system surpasses 75% to 80% of resource consumption. Which of the following scaling approaches is the most appropriate?

- A. Trending
- B. Manual
- C. Load
- D. Scheduled

Answer: C

Explanation:

Load scaling is the most appropriate approach when a system surpasses 75% to 80% of resource consumption. This method involves adjusting resources dynamically in response to the current load, ensuring the system can handle increased demand without performance degradation. Load scaling can be automatic, allowing systems to scale up or down based on predefined metrics like CPU usage, memory, or network traffic, providing an efficient way to manage resources and maintain optimal performance. References: The CompTIA Cloud+ exam objectives include understanding cloud management and technical operations, which encompass knowledge of various scaling approaches, including load scaling, to ensure efficient resource utilization in cloud environments.

NEW QUESTION 82

Which of the following container storage types loses data after a restart?

- A. Object
- B. Persistent volume
- C. Ephemeral
- D. Block

Answer: C

Explanation:

In the context of container storage, ephemeral storage types are designed to be temporary, losing their data when the container is restarted or deleted. This is in contrast to persistent volumes, which retain data across container restarts and lifecycle, and object and block storage, which are used for specific types of data storage but not inherently temporary. Ephemeral storage is often used for temporary computation data, caching, or any data that doesn't need to persist beyond the lifecycle of the container instance.

References: CompTIA Cloud+ CV0-004 Study Guide and Official CompTIA Content

NEW QUESTION 84

Which of the following compute resources is the most optimal for running a single scripted task on a schedule?

- A. Bare-metal server
- B. Managed container
- C. Virtual machine
- D. Serverless function

Answer: D

Explanation:

Serverless functions are ideal for running scripted tasks on a schedule because they can be triggered by events, run the task, and then shut down, incurring costs only for the actual compute time used. This eliminates the need for a continuously running server and is optimal for sporadic or scheduled tasks. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg.

NEW QUESTION 88

A cloud architect attempts to modify a protected branch but is unable to do so. The architect receives an error indicating the action cannot be completed. Which of the following should the architect try instead?"

- A. Adding a new remote
- B. Creating a pull request
- C. Merging the branch
- D. Rebasing the branch

Answer: B

Explanation:

When unable to modify a protected branch directly, the recommended approach is to create a pull request. This allows changes to be reviewed and approved by authorized personnel before being merged into the protected branch, maintaining code integrity and compliance with the project's workflow and policies.

NEW QUESTION 93

A cloud engineer is designing a high-performance computing cluster for proprietary software. The software requires low network latency and high throughput between cluster nodes.

Which of the following would have the greatest impact on latency and throughput when designing the HPC infrastructure?

- A. Node placement
- B. Node size
- C. Node NIC
- D. Node OS

Answer: A

Explanation:

Node placement is critical in high-performance computing (HPC) clusters where low network latency and high throughput are required. Proper placement of nodes within the network infrastructure, including proximity to each other and to key network components, can significantly reduce latency and increase throughput. Ensuring that nodes are physically close and well-connected can facilitate faster data transfer rates between them. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

NEW QUESTION 94

A cloud engineer wants to implement a monitoring solution to detect cryptojacking and other cryptomining malware on cloud instances. Which of the following metrics would most likely be used to identify the activity?

- A. Disk I/O
- B. Network packets
- C. Average memory utilization
- D. Percent of CPU utilization

Answer: D

Explanation:

To detect cryptojacking and other cryptomining malware on cloud instances, monitoring the percent of CPU utilization is most effective. Cryptomining malware typically consumes a significant amount of CPU resources for mining operations, leading to unusually high CPU usage. Monitoring and analyzing CPU utilization metrics can help identify instances of cryptojacking by highlighting abnormal levels of resource consumption. References: Understanding management and technical operations in cloud environments, as outlined in the CompTIA Cloud+ objectives, includes the use of monitoring solutions to detect and respond to security threats like cryptomining malware, ensuring the integrity and performance of cloud resources.

NEW QUESTION 96

A company's main web application is no longer accessible via the internet. The cloud administrator investigates and discovers the application is accessible locally and only via an IP address. Which of the following was misconfigured?

- A. IP
- B. DHCP
- C. NAT
- D. DNS

Answer: D

Explanation:

When a web application is accessible locally via an IP address but not via the internet, the issue likely lies with the Domain Name System (DNS). DNS is responsible for translating domain names into IP addresses. A misconfiguration in DNS records or failure in DNS resolution can prevent users from accessing the application through its domain name, even though the application itself is running and accessible via its direct IP address. References: In the CompTIA Cloud+ curriculum, understanding cloud concepts and networking fundamentals, including DNS, is crucial for troubleshooting and ensuring applications are accessible and perform optimally in cloud environments.

NEW QUESTION 98

A cloud engineer needs to determine a scaling approach for a payroll-processing solution that runs on a biweekly basis. Given the complexity of the process, the deployment to each new VM takes about 25 minutes to get ready. Which of the following would be the best strategy?

- A. Horizontal
- B. Scheduled
- C. Trending
- D. Event

Answer: B

Explanation:

For a biweekly payroll-processing solution that takes a significant amount of time to deploy to each new VM, the best scaling strategy is Scheduled scaling. This strategy involves preparing new instances in advance of when they are needed based on a known schedule, which in this case is the biweekly payroll process. By scheduling the scaling actions in advance, the cloud engineer ensures that the resources are ready when needed without incurring extra costs for running them all the time. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 102

A cloud solutions architect is designing a VM-based solution that requires reducing the cost as much as possible. Which of the following solutions will best satisfy this requirement?

- A. Using ephemeral storage on replicated VMs
- B. Creating Spot VMs in one availability zone
- C. Spreading the VMs across different regions
- D. Using provisioned IOPS storage

Answer: B

Explanation:

Using Spot VMs is a cost-effective solution as these are available at significantly reduced prices compared to standard instances. Spot VMs are ideal for workloads that can tolerate interruptions and are a way to take advantage of unused cloud capacity. References: The concept of Spot VMs and their cost benefits are included in the financial aspects of managing cloud resources, as per the CompTIA Cloud+ certification guidelines.

NEW QUESTION 105

An organization's web application experiences periodic bursts of traffic when a new video is launched. Users are reporting poor performance in the middle of the month. Which of the following scaling approaches should the organization use to scale based on forecasted traffic?

- A. Scheduled
- B. Manual
- C. Event
- D. Load

Answer: A

Explanation:

For periodic bursts of traffic that are predictable, such as when a new video is launched, a scheduled scaling approach is suitable. This strategy involves scaling

resources based on forecasted or known traffic patterns, ensuring that the infrastructure can handle the load during expected peak times. References: The use of scheduled scaling to manage predictable traffic increases is discussed within the Management and Technical Operations section of the CompTIA Cloud+ exam objectives.

NEW QUESTION 108

A company wants to combine solutions in a central and scalable environment to achieve the following goals:

- Control
- Visibility
- Automation
- Cost efficiency

Which of the following best describes what the company should implement?

- A. Batch processing
- B. Workload orchestration
- C. Containerization
- D. Application modernization

Answer: B

Explanation:

Workload orchestration is the best description of what the company should implement to achieve control, visibility, automation, and cost efficiency. It involves using orchestration tools to manage workloads in cloud environments, ensuring resources are used efficiently and operations are automated. References: Workload orchestration is a part of cloud management strategies discussed under the Management and Technical Operations domain in the CompTIA Cloud+ objectives.

NEW QUESTION 112

A security team recently hired multiple interns who all need the same level of access. Which of the following controls should the security team implement to provide access to the cloud environment with the least amount of overhead?

- A. MFA
- B. Discretionary access
- C. Local user access
- D. Group-based access control

Answer: D

Explanation:

Implementing group-based access control is the most efficient way to provide access to multiple interns who require the same level of access. This method allows the security team to assign permissions to a group rather than to individual user accounts, thereby reducing the administrative overhead involved in managing access rights for each intern individually. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

NEW QUESTION 113

Which of the following best explains the concept of migrating from on premises to the cloud?

- A. The configuration of a dedicated pipeline to transfer content to a remote location
- B. The creation of virtual instances in an external provider to transfer operations of selected servers into a new
- C. remotely managed environment
- D. The physical transportation, installation, and configuration of company IT equipment in a cloud services provider's facility
- E. The extension of company IT infrastructure to a managed service provider

Answer: B

Explanation:

Migrating from on-premises to the cloud generally involves creating virtual instances in an external provider's environment and transferring the operations of selected servers to this new, remotely managed setup. This process allows organizations to leverage the cloud provider's resources and services. References: The migration process and strategies are topics included in the Business Principles of Cloud Environments within the CompTIA Cloud+ curriculum.

NEW QUESTION 117

A group of cloud administrators frequently uses the same deployment template to recreate a cloud-based development environment. The administrators are unable to go back and review the history of changes they have made to the template. Which of the following cloud resource deployment concepts should the administrator start using?

- A. Drift detection
- B. Repeatability
- C. Documentation
- D. Versioning

Answer: D

Explanation:

Versioning is a concept that allows cloud administrators to keep track of the history of changes made to deployment templates or any other configuration file. By using version control systems, they can review previous versions, roll back to earlier configurations if necessary, and understand the evolution of the deployment template over time. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 120

A cloud engineer needs to deploy a new version of a web application to 100 servers. In the past, new version deployments have caused outages. Which of the following deployment types should the cloud engineer implement to prevent the outages from happening this time?

- A. Rolling
- B. Blue-green
- C. Canary
- D. Round-robin

Answer: C

Explanation:

A canary deployment is a pattern that reduces the risk of introducing a new software version in production by slowly rolling out the change to a small subset of users before rolling it out to the entire infrastructure. It's an effective strategy to prevent outages since it allows for monitoring and quick rollback if issues arise without affecting all users. References: Canary releases are part of deployment strategies that can help mitigate the risk of outages during updates, a concept included in the CompTIA Cloud+ curriculum.

NEW QUESTION 122

Which of the following describes the main difference between public and private container repositories?

- A. Private container repository access requires authorization, while public repository access does not require authorization.
- B. Private container repositories are hidden by default and containers must be directly referenced, while public container repositories allow browsing of container images.
- C. Private container repositories must use proprietary licenses, while public container repositories must have open-source licenses.
- D. Private container repositories are used to obfuscate the content of the Dockerfile, while public container repositories allow for Dockerfile inspection.

Answer: A

Explanation:

The main difference between public and private container repositories lies in access control. Public repositories allow users to download and use container images without requiring any authorization, making them accessible to anyone. On the other hand, private repositories require users to have proper authorization, usually through credentials, to access the container images, thus providing a level of privacy and security control. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 124

A company recently migrated to a public cloud provider. The company's computer incident response team needs to configure native cloud services for detailed logging. Which of the following should the team implement on each cloud service to support root cause analysis of past events? (Select two).

- A. Log retention
- B. Tracing
- C. Log aggregation
- D. Log rotation
- E. Hashing
- F. Encryption

Answer: AC

Explanation:

For detailed logging to support root cause analysis of past events, the team should implement log retention to ensure logs are kept for the necessary amount of time and log aggregation to compile logs from various sources for easier analysis and correlation. References: Log management practices, including retention and aggregation, are part of the cloud management strategies covered in the CompTIA Cloud+ curriculum, particularly in the domain of technical operations.

NEW QUESTION 129

Which of the following communication methods between on-premises and cloud environments would ensure minimal-to-low latency and overhead?

- A. Site-to-site VPN
- B. Peer-to-peer VPN
- C. Direct connection
- D. peering

Answer: C

Explanation:

A direct connection between on-premises and cloud environments involves a dedicated, private connection that does not traverse the public internet. This setup ensures minimal-to-low latency and overhead, providing more consistent network performance and reliability compared to other methods like VPNs or public internet connections, making it suitable for high-volume or latency-sensitive applications.

NEW QUESTION 134

Two CVEs are discovered on servers in the company's public cloud virtual network. The CVEs are listed as having an attack vector value of network and CVSS score of 9.0. Which of the following actions would be the best way to mitigate the vulnerabilities?

- A. Patching the operating systems
- B. Upgrading the operating systems to the latest beta
- C. Encrypting the operating system disks
- D. Disabling unnecessary open ports

Answer: A

Explanation:

For vulnerabilities with a high CVSS score and a network attack vector, the most effective and direct mitigation action is to patch the operating systems. Patching addresses the specific vulnerabilities that have been identified and helps to secure the servers against the known exploits that could take advantage of these

CVEs. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 137

A cloud engineer is in charge of deploying a platform in an IaaS public cloud. The application tracks the state using session cookies, and there are no affinity restrictions.

Which of the following will help the engineer reduce monthly expenses and allow the application to provide the service?

- A. Resource metering
- B. Reserved resources
- C. Dedicated host
- D. Pay-as-you-go model

Answer: D

Explanation:

A pay-as-you-go model would be beneficial for the cloud engineer because it allows the application to be scaled based on demand, reducing monthly expenses since costs are only incurred for the resources actually used. Since there are no affinity restrictions and the application uses session cookies for state tracking, the pay-as-you-go model can handle fluctuating workloads without the need to pay for unused reserved resources or dedicated hosts. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Service Models

NEW QUESTION 142

A security analyst confirms a zero-day vulnerability was exploited by hackers who gained access to confidential customer data and installed ransomware on the server. Which of the following steps should the security analyst take? (Select two).

- A. Contact the customers to inform them about the data breach.
- B. Contact the hackers to negotiate payment to unlock the server.
- C. Send a global communication to inform all impacted users.
- D. Inform the management and legal teams about the data breach.
- E. Delete confidential data used on other servers that might be compromised.
- F. Modify the firewall rules to block the IP addresses and update the ports.

Answer: AD

Explanation:

After a zero-day exploit resulting in a data breach and ransomware installation, it is critical to inform affected customers about the breach and the potential impact on their data. Additionally, the management and legal teams should be notified to handle the situation in compliance with regulatory requirements and to coordinate an appropriate response. References: Handling security incidents and communication strategies after a data breach are crucial elements of the governance and risk compliance domains in CompTIA Cloud+.

NEW QUESTION 147

A company receives files daily from a bank. The company requires that the files must be copied from the cloud storage resource to another cloud storage resource for further processing. Which of the following methods requires the least amount of effort to achieve the task?

- A. Remote procedure call
- B. SOAP
- C. Event-driven architecture
- D. REST

Answer: C

Explanation:

An event-driven architecture is the most efficient method for automating the task of copying files from one cloud storage resource to another upon their arrival. This architecture allows systems to automatically trigger actions based on specific events, such as the arrival of new files, minimizing manual effort and ensuring timely processing. References: CompTIA Cloud+ resources and cloud service architectures

NEW QUESTION 149

Which of the following refers to the idea that data should stay within certain borders or territories?

- A. Data classification
- B. Data retention
- C. Data sovereignty
- D. Data ownership

Answer: C

Explanation:

Data sovereignty refers to the concept that data is subject to the laws and governance structures within the nation it is collected or stored. It implies that regardless of where a company's data is stored, the data must comply with the laws of the country where it is physically located. References: The principle of data sovereignty is a critical consideration in international cloud services and is included in the governance, risk, and compliance domain of CompTIA Cloud+.

NEW QUESTION 154

A cloud server needs to automatically allocate more resources during sudden peak times. This allocation does not need to occur in regular intervals. Which of the following scaling approaches should be used?

- A. Event
- B. Manual
- C. Trending

D. Scheduled

Answer: A

Explanation:

Event-based scaling is designed to allocate more resources automatically in response to specific events, such as sudden peak times that are not regular or predictable. This type of scaling ensures that resources are available when needed without the need to schedule them in advance or adjust them manually.

References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 158

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